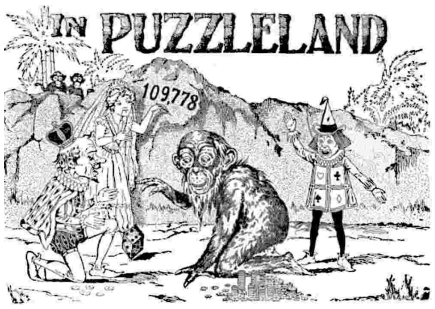
Problem K: In Puzzleland (II)

In the game between the King and the wild man, the latter is the one who is winning at the moment. Princess Enigma, who has been following the game, keeps tally of the wild man's winnings on the background. However, the wild man doesn't really understand the number that the princess is writing.

People from that island have only six fingers (three on each hand), so they use a counting system based on 6 such that, for example, 6 (in decimal) would be written 10 (in base 6). Help the wild man understand the magnitude of his winnings by converting the number that Princess Enigma writes in decimal system, to senary (base–6) system.



The Princess keeping tally on the back

Given a natural number N in decimal, find out the equivalent number in senary.

Input

Input starts with a positive integer **T**, that denotes the number of test cases.

Each test case comes in a single line that contains an integer **N**.

$T \leq 10000$; $0 \leq N \leq 10^{18}$

Output

For each test case, print the case number followed by the number N in base 6.

Sample Input	Output for Sample Input
3 109778 42 3	Case 1: 2204122 Case 2: 110 Case 3: 3